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REPORT RELEASED ON MEASUREMENTS OF ELECTRIC AND MAGNETIC FIELDS NEAR AM BROADCAST TOWERS

The Office of Engineering and Technology of the Federal Communications Commission (FCC) and the Office of Radiation Programs of the U.S. Environmental Protection Agency (EPA) have completed a report entitled, "Electric and Magnetic Fields Near AM Broadcast Towers." This report documents the result of a study performed jointly by the FCC and the EPA as part of an ongoing agreement between the two agencies to cooperate in activities related to human exposure to electromagnetic fields created by FCC-regulated facilities.

The study consisted of measurements of electric and magnetic field strength within 100 meters of eight different AM broadcast towers. The purpose of the study was to acquire data that can be used to more accurately assess the potential for human exposure to radiofrequency radiation near AM towers. The Numerical Electromagnetic Code (NEC) computer program was used to model the towers for prediction of field strength levels and comparison with measured values.

Major conclusions of the study were: (1) measured values were generally in good agreement with NEC predictions; (2) electrical height of an AM tower is important in determining whether electric or magnetic fields predominate near the tower base; (3) significant effects on close-in electric field strength can result from conductive objects such as chain-link fencing; (4) field strength from a non-directional tower at a given distance may differ depending on radial direction from the tower; and (6) recommended distances from a tower given in FCC Bulletin No. 65 for compliance with safety limits tend to be conservative with respect to values measured in the study.

The number of the report is EPA/520/6-91/020. Copies will be available for purchase from the National Technical Information Service (NTIS) and can be ordered by calling NTIS at (800) 336-4700. The NTIS order number for the report is not yet available, but should be assigned by October 15. Call (202) 653-8169 (FCC) or (202) 260-8386 (EPA) after that date to obtain the NTIS number. Copies can also be purchased from the FCC's contractor for public records duplication, Downtown Copy Center, (202) 452-1422.